Placed Based Education: Lesson Plans

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EDS691: Spring 2008
Professor Berci
37 pages + cover page + Field Guide

Topic/Title: The Ancient World – Pre-visit

Issue Statement: To what extent is have human beings transformed the world around them.

Grade Level: grade nine, Unit 1: Ancient World: Civilizations and Religions (4000BC-500 AD)

Logistics (time/place/space):

- Lesson is intended for a, fifty-minute session.
- The physical arrangement for the small group discussions consists of several discussion centers located within the main classroom. Desks are turned so that participants face one another, focus on group discussion and not become distracted by the discussions of the other groups.

Relationships (groupings, climate, culture):

- Based on prior knowledge, this lesson is intended for grade nine classes and conforms to the required curriculum for that grade.
- This lesson is designed to strengthen students' interpersonal intelligence as outlined by Gardner. Students will have a deeper understanding of man's impact on the environment.
- Students will work in groups of five. Groups will be assigned by the teacher based on ability. Seats will be arranged in a circular pattern, with all members of the group facing each other. All groups should function as a whole, with each member of the group participating in the group activity.

- Groups will be asked to complete a series of tasks based on in class discussion and prior knowledge.
- The teacher is to act as a facilitator to the rest of the groups. The teacher will brief the students on knowledge they may not have had prior to the task. Once the groups are in session, the teacher will circulate to each group, ask questions and ensure that students are on task.

Rationale:

- Students need to understand that man has fundamentally transformed the world around him. Through introduction of species of plants not indigenous to the region, these species have had a variety of effects on the local fauna, and on the development of civilization.
- This lesson is to serve as a continuation of a discussion on early civilization and their relationship with their environment as well as an introduction to the place based educational program at Great Kills Park.

Big Idea:

- What was the relationship between early people and their environment?

Concepts:

Human/Physical Geography; Movement of People and Goods; Scarcity; Needs and Wants.

Instructional Objectives:

Informational/Cognitive Knowledge:

- Students will be able to identify the early history of Great Kills Park.
- Students will be able to define the terms invasive species and peninsula.

Procedural knowledge/ Modes of Reasoning:

- Students will be able to extend knowledge of concepts such as domestication and settlement through discussion of local invasive species.
- Students will be able to understand the relationship between early people and their environment as well as the reasons why early people migrated from place to place.

Basic Skills Knowledge

- Students will be able to speak in an effective way through group discussion with the rest of the class.
- Students will be able to write in a clear and effective manner.
- Students will improve socialization skills by participating in group discussions.
- Students will identify value conflicts.

Attitudes/Dispositions/Affective

- Students will understand that each culture is unique and has a unique history and set of traditions.
- Students will also understand that all groups are equally important and have all contributed to society in their own way.

Standards/Themes Addressed:

NCSS Theme:

- Theme 2: Time, Continuity & Change; Strand B: Apply key concepts such as time, chronology, causality, change, conflict and complexity to explain, analyze and show connections among patterns of historical change and continuity.
- Theme 3: People, Places & Environments; Strand B: Create, interpret, use and synthesize information from various representations of the earth, such as maps, globes and photographs.

New York:

- Standard 1: History of the United States and New York; Key Idea 1: The study of New York State and United States history requires an analysis of the development of American culture, it's diversity and multicultural context, and the ways people are unified by many values, practices and traditions.

Materials/Resources:

Students:

Articles describing the history of Great Kills Park, Crooks Point and the changes in the land over the centuries, series of aerial photographs depicting the Crooks point area at various stages of the landfill process. (See Attachment)

Teacher:

Notes for lecture on the United States Park's Department. (See Attachment)

Lesson/Instructional Procedures:

1) Motivator: 10 minutes: Ask students to think about their experiences with local parks on Staten Island as well as ask them to define nature. Students will then share their stories about the various uses of the park as well as state whether or not they believe a park is true nature.

2) Lecture: 10 Minutes: Teacher will engage students by lecturing about the history and purpose of the National Parks Department. Teacher will also help the students define ecosystem, landfill and invasive species. Teacher will explain various events that took place in Great Kills Park's early history.

3) Task/Developmental Procedure: 20 minutes:

- Students will be briefed in the in class activity and divided into separate groups.
- Students will be given a series of primary sources and photographs.
- Each member will read about a specific section of Great Kills park and the various alterations to the ecosystem that have taken place over time as well as analyze several maps that depict the park at various stages of it's development.
- Students will then discuss their sources among the group and draw conclusions about the impact these events have had on the area. One student will be designated to record the thoughts and differences that were discovered from the sources.

4) Culminating Activity/ Extension: 10 minutes:

- Each group will be asked a how they think the land would have been used had It not been altered by man. Each group will answer their specific question while the

other groups have a chance to discuss and ask questions about what they researched.

Student Evaluation:

Informational Knowledge: Students will be given an exit slip asking them to identify key terms such as invasive species, ecosystem, and peninsula …etc.

Attitudes/Dispositions/Affective: Students will be evaluated based on thoughtful responses and group discussion to the assigned task.

Assignment:

Students will be assigned a short response piece that will require them to write about what they expect the following day's place based experience to be like.

Teacher Self Assessment:

- Were the objectives realistic and appropriate?
- Did the instruction method work?
- What components of the lesson succeeded?
- What aspects could be improved?

Notes:

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A Bit of History

Great Kills Park was not always the way we see it today. For thousands of years, winds and ocean currents altered the landscape, creating wide beaches, marshes, and hills of sand called dunes. Severe storms frequently wore away these dunes, the sand carried from place to place by strong winds. In time, these shifting sands became sand spits.

Cottonwood Leaf

Long before our country was founded, Native Americans profited from the areas abundant natural resources. They often met in what is now known as Great Kills Park to gather plants for medicine and food and to dig clams and oysters from the clear, shallow waters. In the 19th century, John J. Crooke, a wealthy mining engineer and naturalist, built a cabin at the end of the spit so he could spend time fishing and harvesting shellfish. You'll recognize "Crooke's Point" as the name still used for the tip of this land today.

Things have changed a great deal since those early days. For example, for the past 90 years, Great Kills Harbor has been a popular recreation area for boaters. This has resulted in a local concentration of bacteria and other contaminants in the water. Since shellfish act as living filters, over time bacteria and viruses concentrate in their tissues. Eating shellfish from the waters of Great Kills Harbor is, therefore, dangerous and illegal. But there is good news, too. As a result of strict government regulation and enforcement, Great Kills Harbor is now cleaner than it has been for many decades. Perhaps one day, like John J. Crooke, we will be able to prepare supper with shellfish straight from Great Kills Harbor.

With the arrival of the 20th century, the number of people living on Staten Island increased greatly and the need for future parkland was clear. While the Great Kills area was recognized as a place ripe for development as a recreational site, much of the land consisted of clay and marshland. After the dredging of the Ambrose shipping channel, there was a significant change in wave and tidal action that greatly effected Staten Island's shorelines. Crooke's Point actually became separated from the sand spit when the sea broke through to the harbor. The Point that once covered 180 acres had eroded to 30 acres. Before a park could be created the beach would need to be stabilized and the land built up.

Sometime in the 1940s a waste incinerator was erected near the site, and for almost a decade the ash and cinders from its ovens were carted to Great Kills to raise the level of the developing park. The ash was covered with sand and mixed with millions of tons of waste material from sewage treatment plants. This "artificial topsoil" would later nourish the trees, shrubs, and flowers that now flourish throughout Great Kills Park. While walking along the Park's roads and wooded pathways, you may occasionally find pieces of crockery, china, and glass half buried in the soil. These, of course, are reminders of the tons of incinerated materials used to create the park we enjoy today.

Great Kills Park was officially opened to the public during the summer of 1949. The beaches were fine for swimming, but there was still much work to be done before the grounds were complete. Parking areas, roadways and walkways, picnic areas, playgrounds, dining facilities, and maintenance buildings had yet to be constructed. In 1952, a gray brick and limestone bathhouse—providing more than 6,000 lockers—was constructed. Upon completion, the people of Staten Island celebrated one of the most beautiful seashore parks in New York. But with time and tides, even the new bathhouse eventually gave way to the forces of erosion and by 1995, it was dismantled.

Introduction

Welcome to Great Kills Park, an essential link in the chain of ecosystems within the New York/New Jersey coastal area known as Gateway National Recreation Area. Here at Great Kills Park, we enjoy a great diversity of natural habitats worthy of exploration by youngsters and adults, alike. This Family Field Guide to the Natural Areas of Great Kills Park is especially designed for children in grades four through six and their parents, but it should prove equally useful to students of every age and background. The Nature Explorer's Toolkit, a collection of field guides coupled with basic gear assembled by visitors, can help the young Nature Explorer investigate, observe and learn. This simple kit is an important accompaniment to the Family Field Guide.

In 1973, Great Kills Park entered a new phase in its history. The land was transferred to the U.S. Department of the Interior as part of the GATEWAY NATIONAL RECREATION AREA. Now, as you explore the beaches, marshes, and woodland trails of Great Kills Park, you will encounter National Park Rangers, always ready to answer your questions, direct you to the right trail, and ensure that you have a happy and safe visit.

The mission of the National Park Service is to preserve the lands and waters of Great Kills Park and to protect and enhance the area as a habitat for plants and animals and give visitors a place to relax, play, explore and learn. Year-round, rangers are busy with resource management activities like monitoring wildlife, overseeing a nesting box program for tree swallows, barn owls, and fish-eating birds called osprey, and controlling invasive species of plants that could endanger native vegetation.

National park rangers are managers, but they are also teachers, and their classroom is the great outdoors—their park's natural habitat or ecosystem. Rangers conduct educational programs for day visitors, families, and for school groups. Be sure to pick up a program guide listing these activities and you'll see why some folks call Great Kills Park "the happiest classroom in New York City."

Since the mid-1990s, multi-million dollar improvements have resulted in new trails for walking, jogging, cycling and skating as well as a new beach station, playgrounds, and fresh water ponds. A promenade along the harbor is perfect for enjoying a leisurely stroll or watching the sun set. Equally important, is an exciting Education Field Station/Discovery Center, where families and groups join rangers in explorations of the natural world that Great Kills Park preserves.

Exotic Plant Management Plan
Gateway National Recreation Area
Great Kills Park
Crooke's Point
Summer 2004

Crooke's Point, a sandy peninsula, has a colorful history dating back to the early 17th and 18th centuries. Native Americans gathered food and medicines from the abundance of plants and animals at Great Kills. The point or sand spit was known as Brown's Point in the mid-1800's, named after John Brown, the local shipyard owner. Oystering boomed in the area during the Civil War and continued until 1914. Around 1860 Brown's Point was purchased by John J. Crooke, a wealthy mining engineer and naturalist. Crooke's Point has carried his name ever since. It was Crooke's intention to maintain the natural ecology of the peninsula.

The City of New York purchased Crooke's Point and adjacent properties in 1929 for the purpose of building a "Marine Park". In 1940 Great Kills Harbor was dredged and wetlands were filled to create the park and to permanently connect Crooke's Point to the mainland. Great Kills Park was opened to the public in July of 1949.

In March of 1974 Great Kills Park, including Crooke's Point, was transferred to the United States Department of the Interior to be included in Gateway National Recreation Area. The shape of the peninsula is continually changing when winter storms and waves deposit sand along the shores of Crooke's Point. The dredging of 2002 has caused severe erosion of sand dune plants along the recreational channel shoreline of Crooke's Point.

Crooke's Point Natural Area is designated as a special unique area providing walking trails, fishing spots, and scenic views for park visitors. Since 1974 the upland sand dunes have finally revegetated naturally with bayberry and beach grass and with the help of historical plantings by park rangers. Sand has accreted to form hilly dunes and seaside goldenrod and sea rocket have started to take root.

The inland maritime forest is mature with stands of White popular, Black cherry, Red cedar, Sweet gum, Paper birch, and various species of pines. Native Virginia creeper and Poison ivy are mixed in with shrubs of Northern bayberry and Winged sumac.

Crooke's Point Natural Area is a highly-valued sensitive wildlife area for bird and butterfly observation and nature study. The Point is located along the Atlantic flyway and many species of migratory songbirds have been identified during spring and fall migrations while resting and feeding in the forest. During the fall season Monarch butterflies have been observed roosting in poplars and pines in the maritime forest.

Yellow warblers and Common Yellowthroats have been observed throughout the summer and most likely nest on Crooke's Point. The forest also sustains Ring-necked pheasants, Cottontail rabbits, Woodcock, raptors, and various species of insects.

Gateway NRA would like to continue to manage Crooke's Point Natural Area as a maritime forest biological community and maintain the biodiversity within this barrier ecosystem. The trees and shrubs of the forest create a valuable corridor and migratory stopover point for various species of birds and insects. Crooke's Point Natural Area is a highly valued habitat containing native plant species that provide vital resources to resident and migratory wildlife.

However, the exotic invasive Oriental bittersweet (*Celastrus orbiculatus)* has invaded the maritime forest and is strangling trees and pushing out native shrub species. Oriental bittersweet is present in large rapidly-growing infestations that continue to expand throughout Crooke's Point and other parts of Great Kills Park. It is probable that Oriental bittersweet could alter the ecosystem processes of the maritime forest by pushing out native plant communities and, in turn, altering conditions by which wildlife would not benefit.

Once Oriental bittersweet is treated and/or eradicated, an active restoration program to replace the exotic invasive would benefit the plant and animal communities of Crooke's Point. Many trees have fallen to the strangulation of bittersweet. Transplanting native species of Paper birch, Black cherry, Bayberry, and others will enhance the biodiversity on Crooke's Point. The use of herbicides on Crooke's Point may likely be necessary, however, their use should be thought thru carefully due to the potentially damaging affects to other desirable species of plants, wildlife, and insects.

I • FOREWORD

National Parks are often considered the best idea America ever had. The national parks concept emerged in the 1800s out of concern over the loss of wild lands and public spaces. And since the founding of Yellowstone, the first national park anywhere in the world, this system has grown to include 83 million acres of trails for hiking and biking, beautiful settings for bird watching, clear waters for boating and fishing, lovely backdrops for skating and cross-country skiing, and a haven from the hustle and bustle of daily life.

America's national parks are vibrant and scenic places where every year almost 300 million visitors explore and learn. Equally important, each park is charged with preserving, protecting, and enhancing its natural and cultural resources, and providing visitors with opportunities to participate in their stewardship and care.

It's hard to imagine that such a retreat exists right in our own backyard. Yet a bit of wildness is located on the southeast shore of Staten Island. **Great Kills Park** is a thousand acres of coastal habitat found within Gateway National Recreation Area—26,000 acres at the boundaries of New York and New Jersey—where New York Harbor meets the Atlantic Ocean. In 1972, Gateway was added to the National Park system, a collection of over 380 of some of our country's most significant natural and historical places.

For many, visiting Gateway is the first step on a long journey of personal discovery. Created from former city, state, federal and private lands, Gateway has become a place for millions of people, including many urban dwellers from New York and New Jersey, to experience a national park.

Great Kills Park, like all of Gateway, is a year-round park; and each season presents its own unique blend of sights and sounds. Visit any day of the year, from sunrise to sunset, on your own or with a guide. Through the nationwide initiative called **Parks as Classrooms®**, school groups are welcome to investigate the park with the help of our expert park rangers. The Education Field Station, at the heart of the park, hosts many exciting programs, geared to making education active, participatory and fun.

? Call the National Parks of New York Harbor Education Center staff at **(718) 354-4530** for information on school programs in Great Kills Park and the other the national park sites around the New York/ New Jersey area. To learn more about the National Park system, check out the website **www.nps.gov.**

This Family Field Guide will come in handy as you explore the coastal habitats of Great Kills Park—your national park. Try the experiments suggested in the Guide and keep your eyes and ears open! Your senses are about to become your most valuable tools. You might want to record your discoveries on the journal pages at the end of the Guide. Just jot down a thought or sketch an image of something that captivated you.

If you are observant—and lucky—you will be treated to some of nature's most outstanding spectacles. Take your time and remember, in nature the **slower** you travel the **more** you are likely to see.

Jeanette Parker
ASSISTANT DIRECTOR
NATIONAL PARKS OF NEW YORK HARBOR EDUCATION CENTER

ASSESSMENT RUBRIC

	Excellent Level 4	**Good** Level 3	**Satisfactory** Level 2	**Unsatisfactory** Level 1	**Score**
Overall Task	Thoroughly develops in-depth, coherent account of the various changes at Great Kills Park and projects the long-term effects of these events.	Develops in-depth, coherent account of the various changes at Great Kills Park and outlines the long-term effects of these events.	Gives accurate account of the various changes at Great Kills Park and may not project the long-term effects of these events.	Does not develops in-depth, coherent account of the various changes at Great Kills Park or projects the long term effects of these events.	
Theme Analysis	Student is able to make a strong analytical connection between man's actions and changes in the environment. Student also understands there are several method that cause these changes.	Student is able to describe the connection between man's actions and changes in the environment. Student also understands that these changes may occur in several ways.	Student is able to describe man's actions and changes in the environment. Students also accurately describe a method that causes this change.	Student gives only a superficial or inaccurate, description of man's actions and changes in the environment. Lacks understanding of methods of change.	
Supporting Material	Richly develops an analysis of change with many relevant facts, examples and details.	Develops an analysis of change with many relevant facts, examples and details.	Includes relevant information regarding change. Facts may include some minor inaccuracies.	Makes vague, limited, significantly inaccurate and/or unclear references to factors involved in ecological changes or consists primarily of relevant information copied from given sources.	
Outside Sources	Incorporates substantial outside information.	Incorporates relevant outside information.	Incorporates limited relevant outside information.	Presents little or no relevant outside information.	
Number of Sources	Incorporates relevant information from at least 10 sources	Incorporates relevant information from at least 7 sources.	Incorporates some relevant information from some outside sources.	Includes few relevant facts, examples or details; may include inaccuracies.	
Organization	Demonstrates a logical and clear plan of organization; includes an introduction and a conclusion that offer significant insight into ecological issues.	Demonstrates a logical and clear plan of organization; includes an introduction and a conclusion that are beyond a restatement of the assignments directions.	Demonstrates a satisfactory plan of organization; includes an introduction and a conclusion that may be a simple restatement of the theme.	Demonstrates a weakness in organization; may lack focus; may contain digression; my not clearly identify which aspect of the task is being addressed; may lack an introduction and/or conclusion.	

Topic/Title: The Ancient World – Site visit

Issue Statement: To what extent is have human beings transformed the world around them.

Grade Level: grade nine, Unit 1: Ancient World: Civilizations and Religions (4000BC-500 AD)

Logistics (time/place/space):

- Lesson is intended for two, fifty-minute sessions.
- The physical arrangement for the small group discussions consists of several student teams who will be assigned to a respective park ranger.

Relationships (groupings, climate, culture):

- Based on prior knowledge, this lesson is intended for grade nine classes and conforms to the required curriculum for that grade.
- This lesson is designed to strengthen students' interpersonal intelligence as outlined by Gardner. Students will have a deeper understanding of man's impact on the environment.
- Students will work in groups of five. Groups will be assigned by the teacher based on ability. Students will be arranged into teams that will conduct their various investigations. All groups should function as a whole, with each member of the group participating in the group activity.
- Groups will be asked to complete a series of tasks based on in class discussion and prior knowledge.
- The teacher is to act as a facilitator to the rest of the groups. The teacher will brief the students on knowledge they may not have had prior to the task. Once the

groups are in session, the teacher will circulate to each group, ask questions and ensure that students are on task.

Rationale:

- Students need to understand that man has fundamentally transformed the world around him. Through introduction of species of plants not indigenous to the region, these species have had a variety of effects on the local fauna, and on the development of civilization.
- This lesson is to serve as a continuation of a discussion on early civilization and their relationship with their environment as well as a place based educational program at Great Kills Park.

Big Idea:

- What was the relationship between early people and their environment?

Concepts:

Human/Physical Geography; Movement of People and Goods; Scarcity; Needs and Wants, Invasive Species, Pollution.

Instructional Objectives:

Informational/Cognitive Knowledge:

- Students will be able to identify various invasive species at Great Kills Park.
- Students will be able to define the terms invasive species and domestic species.

Procedural knowledge/ Modes of Reasoning:

- Students will be able to extend knowledge of concepts such as domestication and settlement through analysis of local invasive species.
- Students will be able to understand the relationship between early people and their environment as well as the reasons why early people migrated from place to place.

Basic Skills Knowledge

- Students will be able to speak in an effective way through group discussion with the rest of the class.
- Students will be able to write in a clear and effective manner.
- Students will improve socialization skills by participating in group discussions.
- Students will identify value conflicts.

Attitudes/Dispositions/Affective

- Students will understand that each culture is unique and has a unique history and set of traditions.
- Students will also understand that all groups are equally important and have all contributed to society in their own way.

Standards/Themes Addressed:

NCSS Theme:

- Theme 2: Time, Continuity & Change; Strand B: Apply key concepts such as time, chronology, causality, change, conflict and complexity to explain, analyze and show connections among patterns of historical change and continuity.

- Theme 3: People, Places & Environments; Strand E: describe, differentiate and explain the relationships among various regional and global patterns of geographic phenomena such as landforms, soils, climate, vegetation, natural resources and population.

New York:

- Standard 3: Geography; Key Idea 2: Geography requires the development and application of the skills of asking and answering geographic questions; analyzing theories of geography; and acquiring, organizing and analyzing geographic information.

Materials/Resources:

Students:

Invasive Species Field Guide. (See Attachment)

Teacher:

Introduction to the day's activity. (See Attachment)

Lesson/Instructional Procedures:

1) Motivator: 10 minutes: Ask students to think of themselves as environmental detectives. They will be investigating reports of several invasive species that have been affecting the local ecosystem. Their job will be to identify the plants, and analyze the specific effect they are having on other plants.

2) Lecture: 10 Minutes: The Ranger will then introduce the students to the Blue Dot Trail, the area of the park they will be investigating. The Ranger will give the group a brief history of the trail as well as discuss several safety tips that students should observe while in the field.

3) Task/Developmental Procedure: 60 minutes:

- Students will be briefed in the in class activity and divided into separate groups.
- Students will be given an Invasive Species Field Guide.
- Each member will work with the rest of their group to complete the various objectives outlined in the field guide. This will require them to make group analysis as well as conduct various experiments at predetermined junctures during the trail.
- Students will then discuss their sources among the group and draw conclusions about the impact these events have had on the area.

4) Culminating Activity/ Extension: 10 minutes:

- After completion of the trail, each group will be asked to discuss their findings with the other groups.

Student Evaluation:

Informational Knowledge: Each student's field guide will be evaluated to determine the amount of informational knowledge gained.

Attitudes/Dispositions/Affective: Students will be evaluated based on thoughtful responses and group discussion to the assigned task.

Assignment:

Students will be assigned a short reflective piece based on their findings in the field. This reflective piece will be handed in along with the completed field guide.

Teacher Self Assessment:

- Were the objectives realistic and appropriate?
- Did the instruction method work?
- What components of the lesson succeeded?
- What aspects could be improved?

Notes:

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ASSESSMENT RUBRIC

	Excellent Level 4	**Good** Level 3	**Satisfactory** Level 2	**Unsatisfactory** Level 1	**Score**

Overall Task	Thoroughly develops in-depth, coherent account of the various changes at Great Kills Park and projects the long-term effects of these events.	Develops in-depth, coherent account of the various changes at Great Kills Park and outlines the long-term effects of these events.	Gives accurate account of the various changes at Great Kills Park and may not project the long-term effects of these events.	Does not develops in-depth, coherent account of the various changes at Great Kills Park or projects the long term effects of these events.	
Theme Analysis	Student is able to make a strong analytical connection between man's actions and changes in the environment. Student also understands there are several method that cause these changes.	Student is able to describe the connection between man's actions and changes in the environment. Student also understands that these changes may occur in several ways.	Student is able to describe man's actions and changes in the environment. Students also accurately describe a method that causes this change.	Student gives only a superficial or inaccurate, description of man's actions and changes in the environment. Lacks understanding of methods of change.	
Supporting Material	Richly develops an analysis of change with many relevant facts, examples and details.	Develops an analysis of change with many relevant facts, examples and details.	Includes relevant information regarding change. Facts may include some minor inaccuracies.	Makes vague, limited, significantly inaccurate and/or unclear references to factors involved in ecological changes or consists primarily of relevant information copied from given sources.	
Outside Sources	Incorporates substantial outside information.	Incorporates relevant outside information.	Incorporates limited relevant outside information.	Presents little or no relevant outside information.	
Number of Sources	Incorporates relevant information from at least 10 sources	Incorporates relevant information from at least 7 sources.	Incorporates some relevant information from some outside sources.	Includes few relevant facts, examples or details; may include inaccuracies.	
Organization	Demonstrates a logical and clear plan of organization; includes an introduction and a conclusion that offer significant insight into ecological issues.	Demonstrates a logical and clear plan of organization; includes an introduction and a conclusion that are beyond a restatement of the assignments directions.	Demonstrates a satisfactory plan of organization; includes an introduction and a conclusion that may be a simple restatement of the theme.	Demonstrates a weakness in organization; may lack focus; may contain digression; my not clearly identify which aspect of the task is being addressed; may lack an introduction and/or conclusion.	

Topic/Title: The Ancient World – Post Visit

Issue Statement: To what extent is have human beings attempted to limit transformations to the world around them.

Grade Level: grade nine, Unit 1: Ancient World: Civilizations and Religions (4000BC-500 AD)

Logistics (time/place/space):

- Lesson is intended for a, fifty-minute session.
- The physical arrangement for the small group discussions consists of several discussion centers located within the main classroom. Desks are turned so that participants face one another, focus on group discussion and not become distracted by the discussions of the other groups.

Relationships (groupings, climate, culture):

- Based on prior knowledge, this lesson is intended for grade nine classes and conforms to the required curriculum for that grade.
- This lesson is designed to strengthen students' interpersonal intelligence as outlined by Gardner. Students will have a deeper understanding of man's impact on the environment as well as attempt to limit that change.
- Students will work in groups of five. Groups will be assigned by the teacher based on ability. Seats will be arranged in a circular pattern, with all members of the group facing each other. All groups should function as a whole, with each member of the group participating in the group activity.
- Groups will be asked to complete a series of tasks based on in class discussion and prior knowledge.

- The teacher is to act as a facilitator to the rest of the groups. The teacher will brief the students on knowledge they may not have had prior to the task. Once the groups are in session, the teacher will circulate to each group, ask questions and ensure that students are on task.

Rationale:

- Students need to understand that man has fundamentally transformed the world around him. Students must be able to weigh the benefits and drawbacks to environmental changes.
- This lesson is to serve as a continuation of a discussion on early civilization and their relationship with their environment as well as a follow up lesson to the place based educational program at Great Kills Park.

Big Idea:

- What was the relationship between modern people and their environment?

Concepts:

Human/Physical Geography; Movement of People and Goods; Scarcity; Needs and Wants, Conservation.

Instructional Objectives:

Informational/Cognitive Knowledge:

- Students will be able to identify the early history of conservation on Staten Island.
- Students will be able to define the terms conservation and preservation.

Procedural knowledge/ Modes of Reasoning:

- Students will be able to extend knowledge of concepts such as ecology and the environment through discussion of several local conservation attempts on Staten Island.
- Students will be able to understand the relationship between early people and their environment as well as the continuation of that relationship for this and future generation.

Basic Skills Knowledge

- Students will be able to speak in an effective way through group discussion with the rest of the class.
- Students will be able to write in a clear and effective manner.
- Students will improve socialization skills by participating in group discussions.
- Students will identify value conflicts.

Attitudes/Dispositions/Affective

- Students will understand that the environment is essential to life on Earth and that steps must be taken to protect it.
- Students will also understand that there are several points of view in regard to environmental studies and conservation.

Standards/Themes Addressed:

NCSS Theme:

- Theme 6: Power, Authority & Governance; Strand A: Examine persistent issues involving the rights, roles and status of the individual in relation to the general welfare.
- Theme 10: Civic Ideals and Practices; Strand E: Analyze and evaluate the influence of various forms of citizen action on public policy.

New York:

- Standard 1: History of the United States and New York; Key Idea 1: The study of New York State and United States history requires an analysis of the development of American culture, it's diversity and multicultural context, and the ways people are unified by many values, practices and traditions.

Materials/Resources:

Students:

Two articles portraying the lives of early local conservationists Frederick Law Olmstead Jr. & William Thompson Davis. (See Attachment)

Teacher:

Notes for lecture topic of conservation. (See Attachment)

Lesson/Instructional Procedures:

1) Motivator: 10 minutes: Ask students to think about their experiences at the park as well as identify dangerous environmental conditions in their neighborhood.

2) Lecture: 10 Minutes: Teacher will engage students by lecturing about early conservation movement. Teacher will also help the students define conservation as well

as incentive conservation. Teacher will inform them about various government programs that have been introduced as a result of the conservation movement. .

3) Task/Developmental Procedure: 20 minutes:

- Students will be briefed in the in class activity and divided into separate groups.
- Students will be given a series of primary sources.
- Each member will read about a specific local conservationist and apply that person's theories on the environment to the example of a dangerous environmental condition identified in the motivation section of the class.
- Students will then discuss their sources among the group and draw conclusions about the impact these men have had on the Island. One student will be designated to record the thoughts and differences that were discovered from the sources.

4) Culminating Activity/ Extension: 10 minutes:

- Each group will be asked to discuss which of the examples of a local environmental situation they think is the most relevant and would like to research further.

Student Evaluation:

Informational Knowledge: Students will be given an exit slip asking them to identify key terms such as conservation, incentive conversation, and the various bills discussed in class.

Attitudes/Dispositions/Affective: Students will be evaluated based on thoughtful responses and group discussion to the assigned task.

Assignment:

Students will be assigned a short response piece that will require them to further investigate and develop a solution to the dangerous environmental situation in their community. (Examples could include a landfill, excessive traffic, chemical plants…etc.)

Teacher Self Assessment:

- Were the objectives realistic and appropriate?
- Did the instruction method work?
- What components of the lesson succeeded?
- What aspects could be improved?

Notes:

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Frederick Law Olmsted, Jr.

Personal information	
Name	Frederick Law Olmsted, Jr
Nationality	American
Birth date	July 24, 1870
Birth place	Staten Island, New York
Date of death	December 25, 1957 (aged 87)[1]
Place of death	Hartford, Connecticut

Frederick Law Olmsted, Jr. (July 24, 1870 - December 25, 1957) was an American landscape architect best known for his wildlife conservation efforts. He had a lifetime commitment to national parks, and worked on projects in Acadia, the Everglades and Yosemite. Olmsted Island at Great Falls of the Potomac River in Maryland is named after him.

Career

Olmsted was born on Staten Island, New York, the son of Frederick Law Olmsted and Mary Cleveland Perkins, and stepbrother to John Charles Olmsted. After graduating from the Roxbury

Latin School in 1890[2] and earning his bachelor's degree at Harvard University in 1894, he began his career as his famous father's apprentice on two significant projects: the 1893 World's Columbian Exposition in Chicago, and the largest privately-owned home in the United States – the George Vanderbilt estate in North Carolina, famously called the Biltmore Estate. He became a partner in his father's Brookline, Massachusetts landscape architecture firm in 1895, and with Olmsted Sr.'s retirement, quickly took over leadership with his stepbrother. For the next half-century, the Olmsted brothers' firm completed thousands of landscape projects nationwide.

In 1900 Olmsted, Jr. returned to Harvard to teach, and he also established the school's first formal training program in landscape architecture. In 1901, he was appointed by President Theodore Roosevelt as a member of the Senate Park Improvement Commission for the District of Columbia, commonly known as the McMillan Commission, joining other notable personalities such as Daniel H. Burnham, Charles F. McKim and Augustus Saint-Gaudens, with a charge to "restore and develop the century-old plans of Major L'Enfant for Washington and to fit them to the conditions of today." In 1910, he was approached by the American Civic Association for advice on the creation of a new bureau of national parks. This initiated six years of correspondence, including this letter to the president of the Appalachian Mountain Club, January 19, 1912:

"The present situation in regard to the national parks is very bad. They have been created one at a time by acts of Congress which have not defined at all clearly the purposes for which the lands were to be set apart, nor provided any orderly or efficient means of safeguarding the parks . . . I have made at different times two suggestions, one of which was . . . a definition of the purposes for which the national parks and monuments are to be administered by the Bureau."

His best contribution was of a few simple words that would guide conservation in America for generations to come (National Park Service Organic Act, 1916):

"To conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

Olmsted and his wife, Sarah Hall Sharples, whom he married on March 30, 1911, had one child.

By 1920, his better-known projects included plans for metropolitan park systems and greenways across the country. In 1928, while working for California State Park Commission (now part of the California Department of Parks and Recreation), Olmsted completed a statewide survey of potential park lands that defined basic long-range goals and provided guidance for the

acquisition and development of state parks.[3] and was a founding member and later president of the American Society of Landscape Architects.

Frederick Law Olmsted, Jr. at his drafting table

Under the leadership of John Charles Olmsted and Frederick Law Olmsted, Jr., the Olmsted Brothers firm employed nearly 60 staff at its peak in the early 1930s. As the last surviving family member in the firm, Olmsted, Jr. retired in 1949.

A partial listing of Olmsted, Jr. design projects in the nation's capital reads like a guide to the National Park Service-managed sites of Washington, D.C., including the National Mall, Jefferson Memorial, White House grounds, and Rock Creek Park. In his later years, Olmsted, Jr., actively worked for the protection of California's coastal redwoods. Redwood National Park's Olmsted Grove was dedicated to him in 1953, the same year in which he received the Pugsley Gold Medal. He was responsible for the original terrace-style 'master plan' layout of Cornell University, that is responsible for the large Arts Quad and Libe Slope. He also worked on: the Bok Tower Gardens; Forest Hills Gardens, New York; and Lake Wales, Florida.

Olmsted, Jr. is buried at Old North Cemetery in Hartford, Connecticut.

WILLIAM T. DAVIS WILDLIFE REFUGE

William Thompson Davis (1862-1945), whose family history on Staten Island dates back to the 17th century, was born in New Brighton. Davis was a renowned naturalist and entomologist, and a co-founder of the Natural Science Association of Staten Island. He was largely self-taught, but nonetheless made huge contributions to the study of Staten Island's community and natural history. His 1892 memoir *Days Afield on Staten Island* catalogues the island's plants and animals, while *Staten Island and Its People*, which he coauthored with Charles W. Leng (1859-1941) in 1930, is one of the greatest accounts of Staten Island history.

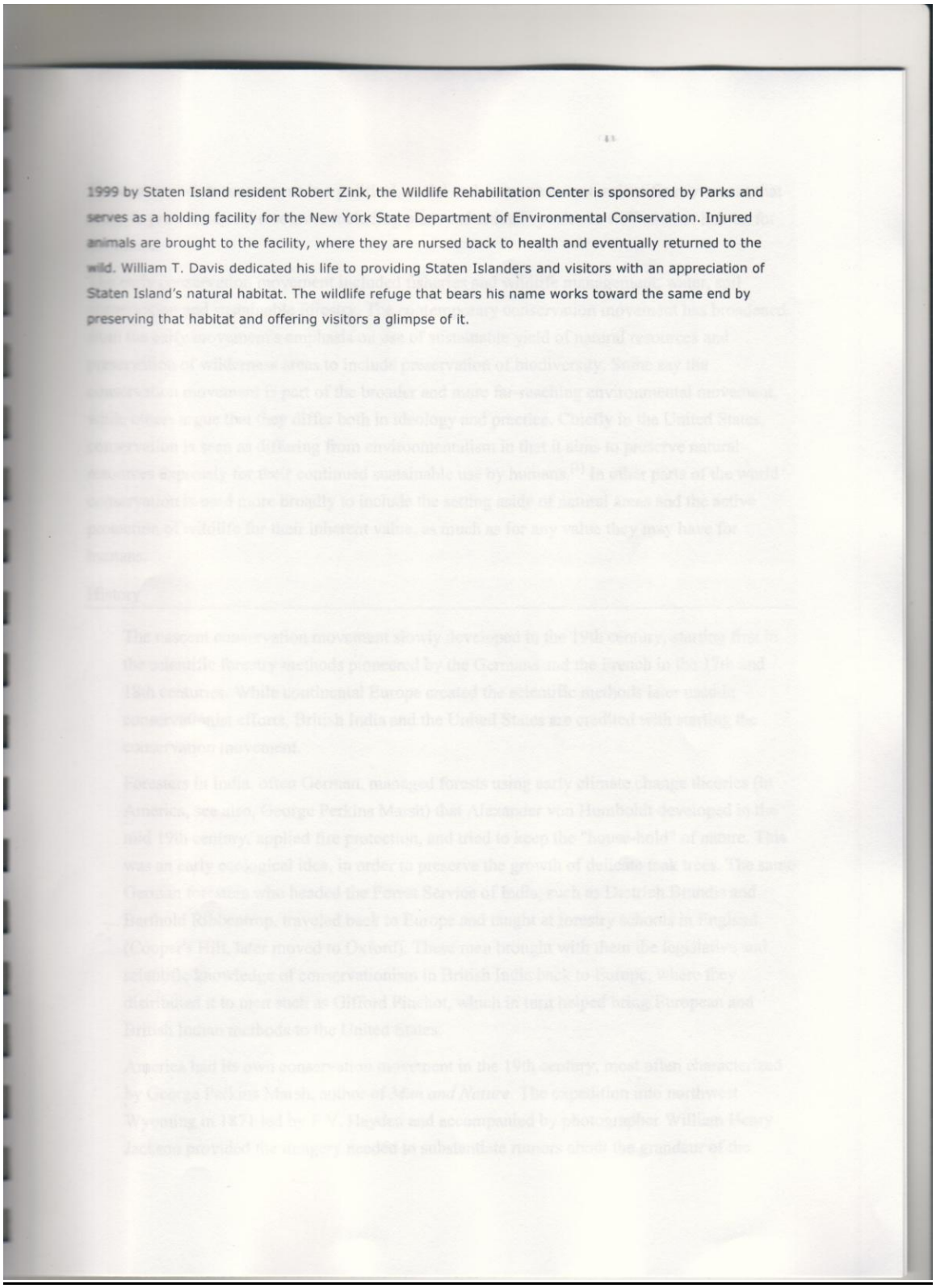
This property's boundaries are Victory Boulevard, Signs Road, Travis Avenue, and Arthur Kill Road. The surrounding community, which is now called Travis, used to be called Linoleumville. The nation's first linoleum factory, The American Linoleum Manufacturing Company, opened here in 1873 and employed 200 people by the end of its first decade of operation. A small town, complete with streets and a school, soon grew up around the factory. In 1928, the Sandura-Wild Corporation of Philadelphia purchased the plant, and two years later moved operations back to Pennsylvania, closing the factory here.

During the 1920s, the residents in the area voted to change the community's name to reflect its rich history. The new name was Travisville, for Colonel Jacob Travis who resided here before the Civil War. Soon the area became known simply as Travis.

In 1928, Davis and the Audubon Society successfully secured 52 acres here as a wildlife and bird sanctuary. It was the first such wildlife preserve in New York. The next year, the City acquired 157.62 acres of surrounding land from the Crystal Water Company, which had been bottling and selling the spring water that still bubbles throughout this property (although it is no longer safe to drink). In the mid-1950s, the park's acreage was expanded again so as to protect the surrounding marshland from being filled in and developed. In 1955, with a total of 260 acres, a nature education center was established here. Over the next several decades, the property grew in size. In 1982, when it was 375 acres, it was officially designated the William T. Davis Wildlife Refuge. A renovation of the walking trail was completed in 1987. Three quarters of a mile long, the trail was covered with over eight tons of wood chips and new trail markers were also installed.

Of the more than 1,700 parks in New York City, this wildlife refuge is the sixth largest, only 30 acres smaller than Central Park. Besides providing a green space for passive outdoor recreation, it also provides the surrounding community with water pollution filtration and a natural flood control system. Many birds make their homes in this park's marshes, including herons (*Ardea*), egrets (*Egretta*), ibis (*Threskiornithinae*), cormorants (*Phalacrocorax*), and gulls (*Larus*). On the ground and in the water, snapping turtles (*Chelydra serpentina*), fiddler crabs (*Uca*), and muskrats (*Ondatra zibethica*) can be seen throughout the site.

The United for Wildlife Rehabilitation and Education Center is located at the William T. Davis Wildlife Refuge. The center seeks "to care for sick, injured and orphaned wildlife and return them to the wild." Opened in



1999 by Staten Island resident Robert Zink, the Wildlife Rehabilitation Center is sponsored by Parks and serves as a holding facility for the New York State Department of Environmental Conservation. Injured animals are brought to the facility, where they are nursed back to health and eventually returned to the wild. William T. Davis dedicated his life to providing Staten Islanders and visitors with an appreciation of Staten Island's natural habitat. The wildlife refuge that bears his name works toward the same end by preserving that habitat and offering visitors a glimpse of it.

The **conservation movement** is a political, social and, to some extent, scientific movement that seeks to protect natural resources including plant and animal species as well as their habitat for the future.

The early conservation movement included fisheries and wildlife management, water, soil conservation and sustainable forestry. The contemporary conservation movement has broadened from the early movement's emphasis on use of sustainable yield of natural resources and preservation of wilderness areas to include preservation of biodiversity. Some say the conservation movement is part of the broader and more far-reaching environmental movement, while others argue that they differ both in ideology and practice. Chiefly in the United States, conservation is seen as differing from environmentalism in that it aims to preserve natural resources expressly for their continued sustainable use by humans.[1] In other parts of the world conservation is used more broadly to include the setting aside of natural areas and the active protection of wildlife for their inherent value, as much as for any value they may have for humans.

History

The nascent conservation movement slowly developed in the 19th century, starting first in the scientific forestry methods pioneered by the Germans and the French in the 17th and 18th centuries. While continental Europe created the scientific methods later used in conservationist efforts, British India and the United States are credited with starting the conservation movement.

Foresters in India, often German, managed forests using early climate change theories (in America, see also, George Perkins Marsh) that Alexander von Humboldt developed in the mid 19th century, applied fire protection, and tried to keep the "house-hold" of nature. This was an early ecological idea, in order to preserve the growth of delicate teak trees. The same German foresters who headed the Forest Service of India, such as Dietrich Brandis and Berthold Ribbentrop, traveled back to Europe and taught at forestry schools in England (Cooper's Hill, later moved to Oxford). These men brought with them the legislative and scientific knowledge of conservationism in British India back to Europe, where they distributed it to men such as Gifford Pinchot, which in turn helped bring European and British Indian methods to the United States.

America had its own conservation movement in the 19th century, most often characterized by George Perkins Marsh, author of *Man and Nature*. The expedition into northwest Wyoming in 1871 led by F.V. Hayden and accompanied by photographer William Henry Jackson provided the imagery needed to substantiate rumors about the grandeur of the

Yellowstone region, and resulted in the creation of Yellowstone National Park, the world's first, in 1872. Travels by later U.S. President Theodore Roosevelt through the region around Yellowstone provided the impetus for the creation of the Yellowstone Timberland Reserve in 1891. The largest section of the reserve was later renamed Shoshone National Forest, and it is the oldest National Forest in the U.S. But it was not until 1898 when German forester Dr. Carl A. Schenck, on the Biltmore Estate, and Cornell University founded the first two forestry schools, both run by Germans. Bernard Fernow, founder of the forestry schools at Cornell University and the University of Toronto, was originally from Prussia (Germany), and he honed his knowledge from Germans who pioneered forestry in India. He introduced Gifford Pinchot, the "father of American forestry," to Brandis and Ribbentrop in Europe. From these men, Pinchot learned the skills and legislative patterns he would later apply to America. Pinchot, in his memoir history Breaking New Ground, credited Brandis especially with helping to form America's conservation laws.

In the early 1900s the Conservation movement in America was split into two main groups: conservationists, like Pinchot, who were utilitarian foresters and natural rights advocates who wanted to protect forests "for the greater good for the greatest length," and preservationists, such as John Muir, the founder of the Sierra Club. Whereas conservationists wanted regulated use of forest lands for both public activities and commercial endeavors, preservationists wanted forest to be preserved for natural beauty, scientific study and recreation. The differences continue to the modern era, with sustainable harvest and multiple-use the major focus of the U.S. Forest Service and recreation emphasized by the National Park Service.

Contributions by hunters

Hunters have been driving forces throughout history in the movement to ensure long-term sustainability of natural resources and wildlife habitats. Some hunters feel that the honor once bestowed upon their sport has diminished over the years, claiming that mainstream media sometimes ignores the connection between hunting and conservation and often publishes claims that hunting *endangers* wildlife. Of greater concern to endangered wildlife is the loss of habitat, brought on by overpopulation and urban development. Because of their connection with the land and vested interest in increasing wildlife populations, hunters have been influential in implementing and financing various programs geared towards habitat restoration and conservation.

Legislation lobbied by hunters

Hunters have worked closely with local and federal governments to enact legislation to protect wildlife habitats. The following examples represent hunter-advocated legislation enacted to generate funds for preserving and establishing habitats.

The Ontario Federation of Anglers and Hunters successfully lobbied to prevent cuts in funding for the Community Fisheries and Wildlife Involvement Program by 50%.

Pittman-Robertson Wildlife Restoration Act of 1937

In 1937, hunters successfully lobbied Congress to pass the Pittman-Robertson Wildlife Restoration Act, which placed an 11% tax on all hunting equipment. This self-imposed tax now generates over $700 million each year and is used exclusively to establish, restore and protect wildlife habitats.[2]

Federal Duck Stamp Program

On March 16, 1934 President Roosevelt signed the Migratory Bird Hunting Stamp Act, which requires an annual stamp purchase by all hunters over the age of sixteen. The stamps are created on behalf of the program by the U.S. Postal Service and depict wildlife artwork chosen through an annual contest. They play an important role in habitat conservation because 98% of all funds generated by their sale go directly toward the purchase or lease of wetland habitat for protection in the National Wildlife Refuge System. In addition to waterfowl, it is estimated that one third of the nation's endangered species seek food and shelter in areas protected using Duck Stamp funds. Since 1934, the sale of Federal Duck Stamps has generated $670M and helped to purchase or lease 5.2 million acres (21,000 km²) of habitat. The stamps serve as a license to hunt migratory birds, an entrance pass for all National Wildlife Refuge areas and are also considered collectors items often purchased for aesthetic reasons outside of the hunting and birding communities. Although non-hunters buy a significant number of Duck Stamps, 87% of their sales are contributed to hunters. Distribution of funds is managed by The Migratory Bird Conservation Commission (MBCC).[3]

Conservation organizations founded by hunters

There are a number of organizations founded by hunters and by those interested in preserving wildlife populations and habitats. One of the oldest and most well-known organizations is Ducks Unlimited. Another internationally recognized hunters' conservation organization is Safari Club International.

[edit] Problem areas

Deforestation and overpopulation are issues affecting all regions of the world. The consequent destruction of wildlife habitat has prompted the creation of conservation groups in other countries, some founded by local hunters who have witnessed declining wildlife populations first hand.

Boreal forest and arctic

The idea of incentive conservation is a modern one but its practice has clearly defended some of the sub arctic wildernesses and the wildlife in those regions for thousands of years, especially by indigenous peoples such as the Evenk, Yakut, Sami, Inuit and Cree. The fur trade and hunting of these peoples have preserved these regions for thousands of years in some cases until now, ironically the pressure now upon them come from non renewable resources such as oil, sometimes ironically to make synthetic clothing advocated as "humane" as opposed to fur. (See Raccoon Dog for case study of the conservation an animal is through fur trade.) A similar case where hunting and fur got the blame for an animal's demise, when in fact it was responsible for its revival , was the beaver. For many years children's books stated and still do, that the decline in beaver was because of the fur trade, when in fact it was because of habitat destruction and deforestation, and its continued persecution as a pest (it causes flooding). In Cree lands however, where the population valued the nanimal for meat and fur, it continued to thrive. The Inuit defend their relationship with the seal in response to outside critics.[4]

In other regions of the Arctic, the Sami in Scandinavia, Russia and the Evenk in Siberia, indigenous peoples and their traditional hunting and fur trade are making a clear stand against the more "modern" resource exploitation.[*citation needed*]. In Canada the Boreal Forest Conservation Framework is a multi-stakeholder initiative, which includes the Aboriginal peoples in the Canadian north.

Eighty percent of the worlds furs are produced in these regions either through farming by groups such as SAGA or 22% by indigenous peoples. Fur and hunting it appears, as indeed Greenpeace are finding out in the Sami forests, is an economic barrier to development, deforestation etc. The WWF has established areas of traditional hunting and animal use in Siberia and these sable reserves are clearly based on the principles of Incentive Conservation.[5]

ASSESSMENT RUBRIC

	Excellent Level 4	**Good** Level 3	**Satisfactory** Level 2	**Unsatisfactory** Level 1	**Score**
Overall Task	Thoroughly develops in-depth, coherent account of the various conservation attempts on Staten Island and projects the long-term effects of these projects.	Develops in-depth, coherent account of the various conservation attempts on Staten Island and outlines the long-term effects of these projects.	Gives accurate account of the various conservation attempts on Staten Island and may not project the long-term effects of these projects.	Does not develops in-depth, coherent account of the various conservation attempts on Staten Island or projects the long term effects of these projects.	
Theme Analysis	Student is able to make a strong analytical connection between man's actions and changes in the environment. Student also understands there are several method that cause these changes.	Student is able to describe the connection between man's actions and changes in the environment. Student also understands that these changes may occur in several ways.	Student is able to describe man's actions and changes in the environment. Students also accurately describe a method that causes this change.	Student gives only a superficial or inaccurate, description of man's actions and changes in the environment. Lacks understanding of methods of change.	
Supporting Material	Richly develops an analysis of change with many relevant facts, examples and details.	Develops an analysis of change with many relevant facts, examples and details.	Includes relevant information regarding change. Facts may include some minor inaccuracies.	Makes vague, limited, significantly inaccurate and/or unclear references to factors involved in ecological changes or consists primarily of relevant information copied from given sources.	
Outside Sources	Incorporates substantial outside information.	Incorporates relevant outside information.	Incorporates limited relevant outside information.	Presents little or no relevant outside information.	
Number of Sources	Incorporates relevant information from at least 10 sources	Incorporates relevant information from at least 7 sources.	Incorporates some relevant information from some outside sources.	Includes few relevant facts, examples or details; may include inaccuracies.	
Organization	Demonstrates a logical and clear plan of organization; includes an introduction and a conclusion that offer significant insight into ecological issues.	Demonstrates a logical and clear plan of organization; includes an introduction and a conclusion that are beyond a restatement of the assignments directions.	Demonstrates a satisfactory plan of organization; includes an introduction and a conclusion that may be a simple restatement of the theme.	Demonstrates a weakness in organization; may lack focus; may contain digression; my not clearly identify which aspect of the task is being addressed; may lack an introduction and/or conclusion.	